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EXAMINER

WOO, RICHARD SUKYOON

ART UNIT	PAPER NUMBER
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3639

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/859,674	Applicant(s) PHILLIPS ET AL.	
	Examiner Richard Woo	Art Unit 3639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

[Handwritten mark]

DETAILED ACTION

Claim Rejections - 35 USC § 101

- 1) 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

- 2) Claims 18-39 and 46 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In Claim 18, there is no significant recitation of the data processing system or calculating computer for performing data processing operations, in which there is a significant change in the data.

In Claim 46, the computer program itself can not be directed to a practical application of the invention in the useful art to accomplish a concrete, useful, and tangible result. When the computer program is actually executed by the computer, the claimed subject matter produces a useful, concrete and tangible result.

Claim Rejections - 35 USC § 112

- 3) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 4) Claims 40-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 40, the recitations of "module" render the claim indefinite because it is not clear whether they are directed to the computer program or tangible apparatus. If it is the computer program, there is the potential 35 U.S.C. 101 problem (see Supra 101 rejection with respect to the computer program).

Claim Objections

- 5) Claims 11 is objected to because of the following informalities:

In Claim 11, line 1, "for" after "comprising" should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

- 6) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- 7) Claims 1-47, as far as Claims 40-45 are definite, are rejected under 35 U.S.C. 102(e) as being anticipated by Ouimet et al. (US 6,094,641).

As for Claim 1, Ouimet et al. discloses a system comprising:

means for collecting and storing data on past sales (see Figs. 1-2);

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means for forecasting normalized future sales volume based upon the past sales data (see Figs. 1-2; col. 2, line 54 – col. 2, line 17);

means for forecasting normalized future sales volume based upon the past sales data (col. 3, lines 1-13);

means for determining price sensitivity of consumers to changes in price of the product based upon past data (see col. 7, line 34 – col. 8, line 50);

means for forecasting future sales volume at different prices by adjusting the normalized future sales volume forecast by the price sensitivity (see Figs. 5 and 8); and

means for determining an optimal price that maximizes profits using the future sales volume forecast and costs for the product (see Supra columns).

As for Claim 2, Ouimet et al. further discloses the system including means for classifying the past sales into one or more channel segments, whereby each of the past sales is classified into only one channel segment (see the various "Pricing Models", col. 3 – col. 8).

As for Claim 3, Ouimet et al. further discloses the system, wherein the means for determining an optimal price determines an optimal price in each of the channel segments (see Id.).

As for Claim 4, Ouimet et al. further discloses the system, wherein the costs for the product include a different channel segment cost in each of the channel segments (see the pricing models in col. 5 – col. 8).

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As for Claim 5, Ouimet et al. further disclose the system, wherein the means for determining an optimal price accounts for one or more strategic objectives (see Supra columns).

As for Claim 6, Ouimet et al. further discloses the system, wherein one of said strategic objectives is a minimum price for the product (see col. 1, lines 20-50).

As for Claim 7, Ouimet et al. further discloses the system, wherein one of said strategic objectives is a maximum price for the product (see Supra columns 1-2, 7-8).

As for Claim 8, Ouimet et al. further discloses the system, wherein one of said strategic objectives is a minimum sales volume for the product (see Id.).

As for Claim 9, Ouimet et al. further discloses the system, wherein one of said strategic objectives is a maximum sales volume for the product (see Id.).

As for Claim 10, Ouimet et al. further discloses the system including a means for forecasting a response of a competitor to a change in the price of the product by the seller, whereby the means for forecasting future sales volume at different prices accounts for the competitor's response (see Supra column 4).

As for Claim 11, Ouimet et al. further discloses the system including means for determining lost sales data, whereby the means for forecasting future sales volume at different prices accounts for the competitor's response (see Id.).

As for Claim 12, Ouimet et al. further discloses the system including a means for alerting the seller of an occurrence of a pre-specified event (see Supra column 8).

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As for Claim 13, Ouimet et al. further discloses the system, wherein the means for alerting the seller compares prices for actual sales to the optimal price, and the pre-specified event is a difference between the actual sales and the optimal price (see Id.).

As for Claim 14, Ouimet et al. further discloses the system, wherein the means for alerting the seller compares actual sales at the optimal price to the forecasted sales volumes at the optimal price (see col. 3, line 43 – col. 4, line 24).

As for Claim 15, Ouimet et al. further discloses the system, wherein the pre-specified event occurs when a ratio of actual sales volume to the forecasted sales volume is less than a first pre-specified amount (see Col. 5, line 14 – col. 6, line 26).

As for Claim 16, Ouimet et al. further discloses the system, wherein the pre-specified event occurs when the forecasted sales volume exceeds the actual sales volume by more than a second pre-specified amount (see Id.).

As for Claim 17, Ouimet et al. further discloses the system, wherein the mean for determining price sensitivity uses a logistic mathematical model (see Supra various pricing models).

As for Claim 18, Ouimet et al. discloses a method of dynamically pricing a product, the method comprising the steps of:

collecting data on past sales (see col. 3, lines 1-13);

forecasting normalized future sales volume based upon the past sales data (see col. 3, line 43 – col. 4, line 24);

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determining price sensitivity of consumers to changes in price of the product based upon the past sales data (see *Id.*);

forecasting future sales volume at different prices by adjusting the normalized future sales volume forecast by the price sensitivity (see *Supra* columns and cols. 3-8 for the pricing models); and

determining an optimal price that maximizes profits using the future sales volume forecast and costs for the product (see *Id.*).

As for Claim 19, Ouimet et al. further discloses the method including the step of dynamically determining the costs for the product (see *Supra* columns 3-4).

As for Claim 20, Ouimet et al. further discloses the method including the step of classifying the past sales into different channel segments, wherein each of the past sales is classified into only one of the channel segments and wherein the step of forecasting future sales at different prices further comprises forecasting future sales in each of the channel segments (see *Supra* columns 3-6).

As for Claim 21, Ouimet et al. further discloses the method, wherein the costs for the product include a different channel segment cost for each of the channel segments (see *Id.*).

As for Claim 22, Ouimet et al. further discloses the method, wherein the step of determining an optimal price is performed for each of the channel segments (see Optimization Process in *Supra* column 4).

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As for Claim 23, Ouimet et al. further discloses the method, wherein the step of determining an optimal price includes accounting for one or more strategic objectives (see Supra columns 1-2).

As for Claim 24, Ouimet et al. further discloses the method including accepting and storing one or more strategic objectives from the seller (see the Figs. 4A and 5).

As for Claim 25, Ouimet et al. further discloses the method, wherein one of said strategic objectives is a minimum price for the product (see Supra column 1).

As for Claim 26, Ouimet et al. further discloses the method, wherein one of said strategic objectives is a maximum price for the product (see Supra columns 1-2, 7-8).

As for Claim 27, Ouimet et al. further discloses the method, wherein one of said strategic objectives is a minimum sales volume for the product (see Id.).

As for Claim 28, Ouimet et al. further discloses the method, wherein one of said strategic objectives is a maximum sales volume for the product (see Id.).

As for Claim 29, Ouimet et al. further discloses the method, wherein the step of forecasting future sales volume further accounts for inventory of the product (see Supra columns 1-2).

As for Claim 30, Ouimet et al. further discloses the method, wherein the inventory accounts for the forecasted sales for the product at the optimal price (see the optimizing process, col. 5 – col. 6).

As for Claim 31, Ouimet et al. further discloses the method, wherein the step of forecasting future sales volume further accounts for an expected response of a competitor (see Supra column 4).

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As for Claim 32, Ouimet et al. further discloses the method, wherein the step of forecasting future sales volume further accounts for lost sales data (see Id.).

As for Claim 33, Ouimet et al. further discloses the method, further comprising the step of comparing actual sales at the optimal price to forecasted sales volumes at the optimal price (see Supra optimizing process, cols. 5-6).

As for Claim 34, Ouimet et al. further discloses the method including the step of adjusting the optimal price to account for actual sales (see col. 6, line 29 – col. 8, line 20).

As for Claim 35, Ouimet et al. further discloses the method including the step of alerting the seller when the ratio of actual sales volume to forecasted sales volume at the optimal price is less than a first pre-specified amount (see col. 3, line 43 – col. 4, line 24).

As for Claim 36, Ouimet et al. further discloses the method including the step of alerting the seller when the actual sales volume is less than the forecasted sales volume by more than a second pre-specified amount (see Col. 5, line 14 – col. 6, line 26).

As for Claim 37, Ouimet et al. further discloses the method, wherein the step of determining an optimal price further comprising accounting for a volume discount for the product (see Id.).

As for Claim 38, Ouimet et al. further discloses the method, wherein the step of determining price sensitivity further comprises using a logistic mathematical model (see Supra various pricing models).

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As for Claim 39, Ouimet et al. further discloses the method, wherein the step of determining price sensitivity future comprises accounting for a relationship between sales of the product and a second product (see Supra column 8).

As for Claim 40, Ouimet et al. discloses a dynamic pricing network for determining a recommended price for a product, the network comprising:

- a database (103) storing information on prior transactions of the product (see Fig. 1);

- a normalized sales forecast module that accesses the information in the database to form a normalized forecast of future sale volumes (see Fig. 1; col. 3, lines 1-33);

- a price sensitivity module that accesses the information in the database to determine price sensitivity of consumers to changes in price of the product (see col. 4, lines 5-19);

- a sales forecast module that uses the normalized forecast and the price sensitivity to form a forecast of future sales volumes at each of multiple different prices (see Id.);

- a costs module that accesses the information in the database to determine costs for the product (see col. 4, lines 17-19); and

- an optimizer that recommends a profit-maximizing price using the forecast of future sales volumes and the costs (see col. 4, lines 20-23).

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As for Claim 41, Ouimet et al. further discloses the network including a pre-processor that accesses the information in the database and classifies the past transactions into one or more channel segments, whereby the pre-processor classifies each of the transactions into only one channel segment (see col. 3, lines 1-33; col. 3, line 43 – col. 4, line 24).

As for Claim 42, Ouimet et al. further discloses the network, wherein the optimizer further determines an optimal price in each of the channel segments (see Id.).

As for Claim 43, Ouimet et al. further discloses the network, wherein the cost module further determines a cost in each of the channel segments (see Id.).

As for Claim 44, Ouimet et al. further discloses the network including a strategic objectives database storing data on one or more strategic objectives, wherein the optimizer accesses the strategic objectives database and accounts for one or more strategic objectives when recommending the profit-maximizing price (see Figs. 2-5, 8).

As for Claim 45, Ouimet et al. further discloses the network including:

- an alert condition database that stores one or more alert conditions (see col. 3, line 43 – col. 4, line 24); and

- an alert generator that notifies a user when one of the alert conditions occurs (see Id.).

As for Claim 46, Ouimet et al. discloses an article of manufacture, which comprises a computer readable medium having stored therein a computer program for dynamically determining a price for a product, the computer program comprising:

a first code segment which, when executed on a computer, defines a database storing information on prior transactions of the product (see Fig. 1 and Supra column 3);

a second code segment which, when executed on a computer, defines a normalized sales forecast module that automatically forms a normalized forecast of future sales (see Supra columns 3-4);

a third code segment which, when executed on a computer, defines a price sensitivity module that automatically determines price sensitivity for the product (see Fig. 4B, 5, 8 and Supra column 8);

a fourth code segment which, when executed on a computer, uses the normalized forecast and the price sensitivity to form forecasts of future sales of the product at different prices (see Supra columns 3-4);

a fifth code segment which, when executed on a computer, determines costs for the product (see Id.); and

a sixth code segment which, when executed on a computer, uses the forecast of future sales at different prices and the costs to automatically recommend a profit-maximizing price (see Id.).

As for Claim 47, Ouimet et al. further discloses a program storage device readable by a machine, tangibly embodying a program of instructions executable by a machine to perform method steps for dynamically determining a price a product, said method steps comprising:

collecting data on past sales (see col. 3, lines 1-13);

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forecasting normalized future sales volume based upon the past sales data (see col. 3, line 43 – col. 4, line 24);

determining price sensitivity of consumers to changes in price of the product based upon the past sales data (see Id.);

forecasting future sales volume at different prices by adjusting the normalized future sales volume forecast by the price sensitivity (see Supra columns and cols. 3-8 for the pricing models); and

determining an optimal price that maximizes profits using the future sales volume forecast and costs for the product (see Id.).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,910,017 is cited to show a system and method that a maximum profit is predicted by optimizing the price or inventory or both over time.

US 5,960,407 is cited to show a system for estimating price characteristics of a product from classified advertisements including a plurality of textual characters, including a relevant classified advertisement database, an attribute filter, a filtered classified advertisement database, a price analyzer and GUI.

US 6,415,263 is cited to show a system for determining and displaying product pricing for an item including a price checker object for gather and assembling pricing information associated with the item.

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JP 2001-331691 is cited to show a market price prediction system that the market price of article transaction is predicted from history data of the article price and predicted article demands.

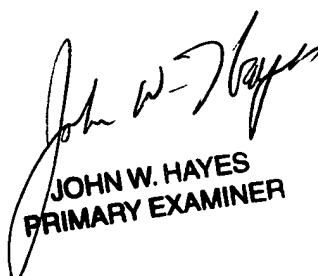
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Woo whose telephone number is 571-272-6813. The examiner can normally be reached on Monday-Friday from 8:30 AM -5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Richard Woo
Patent Examiner
Art Unit 3639
June 23, 2005



JOHN W. HAYES
PRIMARY EXAMINER